AIR COMMAND AND STAFF COLLEGE

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# RESILIENT INTENT:

# CONFRONTING SIX CULTURAL BARRIERS INHIBITING DEVELOPMENT OF RAPIDLY ADAPTIVE LEADERS



BY

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## Abstract

Military leaders operate in increasingly demanding roles as they strive to expertly manage surprises and crises. Perhaps the most challenging environment occurs when their foundational technologies are suddenly denied use, degraded in capability, or destroyed. Ultimately, from the tactical to the national level, success in effectively responding to surprise is best assured by leaders' ability to cultivate and navigate resilient organizations through vast seas of acknowledged and unanticipated risks and opportunities.

There are six common blind spots in modern military culture inhibiting the comprehensive development of more advanced leaders: trust, risk, investment of time, ownership, technology dependence, and personal adaptability. Appropriately, six primary questions can serve as catalysts for reflection and dialogue to aid in the evolution of modern leadership culture to best prepare for crisis, disruption, and surprise. US military leadership culture must evolve to embody, enable, and achieve resilience of intent at a time, tempo, and level of effectiveness better than any adversary. This evolved leadership will acknowledge that it cannot prepare for everything but through collaboration and rapid adaptation will find solutions, maintain the advantage, and effectively respond to anything.

## Introduction

A government's most significant investment is the security of its interests. Often, this is in the form of tremendous military resources that decrease vulnerabilities and provide the greatest advantage over potential adversaries. Historically, militaries have prepared for emerging threats and surprises by investing in mass, quantity, technological innovation, organizational design, training, and planning.[1] However, as the scope of pressures to national security expands—macro-economic cycles, political volatility, and natural disasters to cunning adversaries who leverage non-traditional to tactics achieve their aims—military leaders are finding themselves in increasingly demanding roles as they strive to expertly manage surprises, crises, and disruptions to the very technology and systems they have built their strategies upon. Undeniably then, a military's greatest resource is its leaders.

Presently, military training generally enable forces to prevent or create surprise rather than prepare their leaders to effectively respond to it. Because investment in robust capabilities cannot eliminate all vulnerabilities, this approach leads to risk management practices that attempt to mitigate forecasted risks rather than acknowledge that surprises will occur and find opportunities arising from them. Risk forecasts are inherently flawed because no amount of information or data can provide a leader with true certainty. Ultimately, from the tactical to the national level, success in effectively responding to surprise is best assured by a leader's ability to cultivate and navigate resilient organizations through vast seas of acknowledged and unanticipated risks and opportunities.

Leaders must have these critical attributes to achieve this: acknowledge surprise as a truth and an inevitability;[2] have an acute ability to build, strengthen, and collaborate within and across networks to find and integrate solutions to achieve desired outcomes;[3] facilitate the development and empowerment of creative problem solvers at all levels of their organization; establish a

culture of trust to catalyze the proper development of future leaders; think through the interplay of risk and opportunity in the short and long-term; develop a training plan that enables their mission to continue in the event of disruption, degradation, or denial of their primary technological means, especially communication, navigation, and timing; define optimization as a function of efficiency, effectiveness, and resilience potential.

While inevitable, surprise, disruption, and crisis create a gap between the initial shock of the occurrence and the reaction of a leader or organization. This gap must be quantified, studied, and understood, specifically as a sudden emergence of opportunity, rather than as a risk, roadblock, or problem. The ways, means, and effectiveness of the response by organizations must be better understood and re-shaped. The ability to achieve desired outcomes in spite of rapid and chaotic disruption to ways, means, and risks is "resilient intent." This ethos assumes the following premise from Peter C. Mastro's "Operational Resilience for 2040":

> Uncertainty and surprise will remain inherent in the nature of competition between creative humans dedicated to accomplishing their goals against an adversary. The combination of the enduring nature of surprise, and increased adversary capability, calls into question the United States military's ability to create sanctuaries to protect critical vulnerabilities; a current necessary condition for it to maintain a capability edge over its adversaries. *These changes require the United States to develop a military that can operate through disruption and even thrive in it [italics added]*.[4]

Attaining resilient intent requires post-industrial practices; processes and traditional manufacturing are transitioning to automation, rapidly providing affordable and tailored user-defined products and services globally. Process efficacy and production capacity are no longer key to comparative advantage—the rate of change within the operating environment and the spectrum of risks are simply too diverse. Resilient intent requires post-information age practices; knowledge and data are now ubiquitous, therefore, awareness alone can both empower and encumber any person or organization. Threats or risks to an organization's survival or mission

effectiveness can "hide in the open" cyberspace through data disaggregation. Many adversaries and competitors already leverage these practices to disrupt and counter-disrupt, move and counter-move.[5]

There are six common blind spots in modern military culture that inhibit the comprehensive development of more advanced leaders: trust, risk, investment of time, ownership, technology dependence, and personal adaptability. Appropriately, six primary questions can serve as catalysts for reflection and dialogue. To aid in the evolution of modern leadership culture to best prepare for crisis, disruption, and surprise, the questions can be read and discussed separately or as an entire work.

US military leadership culture must evolve to embody, enable, and achieve resilience of intent at a time, tempo, and level of effectiveness better than any adversary. An evolved leadership culture will acknowledge that it cannot prepare for everything but through collaboration and rapid adaptation will find solutions, maintain an advantage, and adapt quickly to effectively respond to anything.



## Why don't I trust my people?

*You lead to the extent you trust and are trusted. The rest is just management; the kind nobody misses when it's gone.*

*– Unattributed*

Many leaders genuinely believe they trust their people. Some leaders do not trust their people and are bitterly convinced they know why. Some leaders abide by the "trust but verify" dictum, but their verification methods are emotional, driven by cynicism, paranoia, or a quest for vindication. Some leaders lack trust because they fail to accurately measure and assess risk. Some leaders lack a professional intimacy with their people, while others base trust on experience. The importance of a culture of trust is published extensively,[6] and according to Chairman of the Joint Chiefs of Staff General Martin Dempsey, "trust is required at every

echelon of the [military], and that building trust with subordinates and partners may be the most important action a commander will perform."[7] Members of an organization who feel they are not trusted by their leaders feel their morale, potential, and creativity suppressed. They can sense the inhibition of progress by micromanagement and minimal freedom to exercise creativity and problem solving. If trust is fundamental to the success and morale of an organization in times of relative stability, it is absolutely critical in times when communications are disrupted or other unexpected crises are levied on the organization. Leaders must practice trust when it is easy so they can rely on it when it becomes necessary. Leaders must set the conditions for cultivating trust and verifying performance without vindictive intent. Mission command, process-oriented operations, and mission control are three operational models for leaders to accomplish this.[8]

Mission command enables disciplined initiative within the commander's intent.[9] Intent, as categorized in this research, is described as the boundaries set by clearly communicated and understood vision and values. Stated roughly, mission command empowers subordinates to achieve a desired outcome by choosing the ways and means, accepting prudent risk within the expressed vision and values communicated by the leaders. The success and credibility of an organization tasked with the mission is rooted in the trust that they are ideally free to conduct the actions they deem necessary as long as they are within the defined—but not constricting—bounds of the stated intent of the mission. Trust enables certain freedoms because the tasked organization will ideally not be interfered with or guided along at every decision point.

The second model is a process-oriented operating environment. This environment typically occurs when technology is central to the mission of the organization. Engineers carefully outline the boundaries and limits of performance, checklists of processes, steps to take in case of emergency or change in circumstances, or technical orders and publications for the

personnel to adhere to for operations and maintenance. This culture pre-ordains the roles of the organizations because they are designed to explicit specifications. Any individuals or organizations not acting in accordance with these specifications are acting "at variance," or not in accordance with the designs.[10]

The third model is mission control.[11] This is an extremely directive model that leaders can use when they judge that their direction is the only acceptable way given constraints such as time sensitive requirements or political considerations. Less effective leaders rely on mission control because they have not accurately thought through risks and opportunities, are focused solely on directing others *how* to do their job, or they simply do not trust their subordinates to successfully complete their tasks.

Incorrectly imposing one operational model when another is better suited impedes optimization and can cause much frustration among leaders and subordinates. Successful leaders must be able to work among the three models and even hybridize from each of them to optimize their organizations. Within these three models, leaders develop a reasoning for who they trust, to what extent, why, and how they validate or adapt their rationale. Three foundational concepts are critical to this approach are loyalties, memories, and a professional intimacy.

Loyalties are the starting point for many decisions. One's loyalties can be granted to people, organizations, capabilities, functions, or programs based on the level of a leader's familiarity or past emotional investment. Other loyalties emerge from a leader's personal values and convictions. Loyalty to one's own friends or career also shapes how trust and risk are calculated and often how the level to which one would advocate for justice or additional resources.

Memories, particularly of both "scars and superstars," often shape a leader's trusting judgments. Neither of these should be the only lens used to view the present because people and contexts change. Scars are created from events or people associated with times of frustration, strife, or pain; without recognizing the independence of present events from the past, leaders can incorrectly project those scars onto the present and inhibit the cultivation of trust. Memories of subordinate superstars are a relief because they excelled with each challenge and accomplished everything that was required. This can catalyze blind trust in what or who is familiar and neglect to recognize that circumstances change.

Finally, trust is calibrated to the level of professional intimacy with subordinates and "owners" (i.e., the individual who is truly responsible for a task, function, program, or people).[12] Genuine understanding of the attributes and talent that comprise subordinates enables a leader to accurately adapt to better motivate and develop them. Leaders may not trust because they may not be familiar with all of the relevant owners—inside and outside of their organization—and their unique priorities, capabilities, and potential. Trust enables leaders to effectively organize owners within their organization and synchronize processes to clearly determine the distribution of responsibilities. Leaders are wise to invest in developing a professional intimacy with the people around them to validate the extent that the trust is being cultivated.

A professional intimacy is brought about by and fosters a level of communication that can provide leaders with insight to perform critical analysis, reflection, and actions that constantly improve the organization, its people, and the mission. It is important that "trust and validate" be executed without naïve optimism or lingering cynicism. For example, subordinates working to innovate and solve problems within the bounds of a leader's clearly articulated and understood vision and values should not fear punitive disciplinary actions for failure. Rather,

leadership requires deliberate investment in facilitating the success of subordinates and advocating on their behalf; aside from the immediate benefits of a trust culture, this works toward building a necessary reserve of future leaders better prepared to demonstrate resilient intent.

Leaders who limit the amount of trust placed in their people limit the growth of their people. These leaders tend to approach problems as a manager who prefers to do (rather than delegate) a task and direct subordinates at every step, fostering a culture of dependence[13] upon the manager. This is a "do/direct" philosophy, and it is the typical approach of leaders who are deemed micromanagers.[14] Many leaders have been selected for a leadership position by demonstrating technical or tactical mastery of their craft. Immature doer/directors can have a "been there, done that, did it better than you are now" attitude with their subordinates. Micromanagers may also be unwilling to risk any failure they deem can occur if subordinate actions or processes are at variance with their narrow focus. This approach makes the leader indispensable to processes that should be able to operate independently. Organizations replete with indiscrete doer/directors are rigid and fragile; they face significant roadblocks to rapid adaption and resilience when the unexpected occurs because the owners and subordinates are not empowered or prepared to become adaptive when crisis or surprise occurs.

It is critical for a leader to think clearly and deeply about the extent to which one trusts and is trusted. This is the foundation of how to best cultivate a culture of trust, validate successes and shortcomings and properly invest in junior leaders.[15] Once this foundation is set, leaders must more deeply explore what fears, concerns, threats, and challenges inhibit opportunities for success, innovation, development, and adaptability that the right kind of thinking can enable.

**What is my problem with risk?[16]**

An organization that lacks deliberate development of its leaders' approach to discerning and anticipating risks and opportunities creates barriers to collaboration and inhibits creative problem solving. This is especially true when rapid and effective response to disruption or surprise is required. Dangerous and inadequate decisions can be made when any person considers risk and opportunities independent of each other.

Risk, as defined by the International Organization for Standardization is the "effect of uncertainty on objectives."[17] Risk management, is the "identification, assessment, and prioritization of risks followed by coordinated and economical application of resources to minimize, monitor, and control the probability and/or impact of unfortunate events or to maximize the realization of opportunities."[18] Risk describes potential, a future event, or something that might or might not happen.[19] Ulrich Beck and Anthony Giddens authored seminal works on the concept of a risk society, one that organizes itself around the question, "[H]ow can the risks and hazards…be prevented, minimized, dramatized or channeled?"[20] Beck described risk society as "the modern approach to foresee and control the future consequences of human action."[21]

Risk consensus requires all leaders of an organization to be commonly trained and educated in discerning, measuring, and assuming risks and capitalizing on opportunities. Without a common culture approach to risk, collaborating organizations will find tension between leaders. This is further exacerbated by diverse character traits exclusive to sub- and microcultures,[22] such as boldness or timidity and laissez-faire or controlling leadership styles. Collaboration among and within networks[23] can fail if some leaders are willing to assume risk and others are not based solely on their paradigms and personal proficiency in risk management.[24]

From 2009 to 2014, US Air Force Special Operations Weather Teams integrated a specific principle into every event when planning for and conducting highly specialized and necessarily dangerous training. This principle was published to establish a common approach to risk among all members. The principle was simple; "Learn to discern and manage risk rather than fear, disregard or mock it."[25] This enabled a level of trust in subordinate leaders during times of relative stability in preparation for combat operations. This approach to weighing risks and opportunities was based on the premise of trust as a *necessity* rather than a *luxury*.

Developing a mastery of discerning and managing risk and opportunity begins with assessing risks leaders often face. Once the practice of discernment begins to evolve, leaders can then derive their own approaches to risk, practice adapting their approaches to context, and better understand how people around them approach risk. To simplify the discernment analysis, Table 1 provides a list of common risks by category. An effective exercise for a leader to develop risk discernment begins by assessing loyalties, current operating environment, current personal approach to risk, and the perception of their own leader's approach to risk. This is not a prescriptive approach to risk taking but an opportunity for leaders to fully examine the spectrum of potential risks and common personal or cultural habits and relate them to relevant context. [26] Creating a notional basket of common decisions and a few that are personally difficult allows a leader to assess more carefully what risks and opportunities he/she is most or least comfortable in assuming. This can enable a better-calibrated approach to risk based more on facts and less on assumptions or emotions. Discussion and reflection on estimated risk and opportunities resulting from a decision as compared to what extent a leader are willing to assume it provides an opportunity to learn from diverse perspectives.

Table1 lists common risk considerations associated with a leader's decisions and lists them by category. The categories include professional risk, risk to one's own professional goals and needs; internal risk, risk required for an organization to sustain normal operations and processes; mechanical risk, risk that occurs when the organization is in action, facing disruption, or trying to progress, improve or adapt; and external risk, which is an estimation of factors that act upon an organization that cannot necessarily be influenced.

**Table 1: Common Risks Leaders Must Consider**

| | | | |
|---|---|---|---|
| **Professional Risk** | Legal<br>Personal Integrity (Morals, Values, Beliefs)<br>Personal Bias[27]<br>Decision Quality [28]<br>Career Goals<br>Continued Employment<br>Finances<br>Credibility<br>Vision Surety<br>Personal Resilience<br>360° of Trust<br>Blowback[29] | **Internal Risk** | Legal<br>Understanding of the Problem<br>Mission Success<br>Fiscal certainty<br>Protection of Resources<br>Safety of Personnel<br>360° Credibility<br>Security<br>Supply Chain<br>Information Assurance<br>Organizational Fragility<br>Blowback |
| **Mechanical Risk (The Org in Action)** | Legal<br>The Many How's (Methods)<br>The Many When's (Tempo, Decision Points)<br>Success of Processes<br>Person or Org Carrying Out the Task<br>Financial Cost<br>Human Cost<br>Blowback | **External Risk** | Legal<br>360° Continuity of Support (Perception Based)<br>Adversarial Actions/Reactions<br>Competitor Actions/Reactions<br>Senior Leaders Biases<br>The Unforeseen<br>Long-Term Implications<br>Short-Term Implications<br>Blowback |

Integrating risk and opportunity discernment into a leader's decision-making framework can be challenging. Leaders dwelling on risks can get lost in "analysis paralysis" and slow their decision-making cycles[30] with endless considerations and "what if" scenarios. On the other

hand, decisive leaders must ensure their framework is calibrated by the best understanding of the present conditions and context before considering what has not yet occurred.[31] Achieving this balance of risk discernment and prudent risk-assumption skills required to rapidly adapt to disruption cannot be "bolted on" to a leader once they take charge; the development of agile leaders capable of rapid adaptation requires risk-discerning mentors who trust and empower their people early and often.

Thinking through short- and long-term risks and opportunities prepares a leader to be more rapidly adaptive as the future unfolds. Confidence in any estimation of the future decreases usually in proportion to the distance from the time of the decision. Leaders who cultivate an organization whose members consistently measure and anticipate risks and opportunities are going to be better prepared for surprise when a crisis occurs. Planning or anticipating is better than not planning anything at all because it softens the edge of unfamiliarity. General Eisenhower once said, "Plans are worthless, but planning is everything."[32] Indeed, once a plan is put into action, there are many independent variables that will require adaptation to achieve success; the plan, the organization and the leaders must be resilient because not all things go as expected. Yet if a leader and his organization have not deliberately thought through risks and opportunities, unexpected barriers or disruptions create a gap and increase response time.

Leaders at any level who insufficiently account for risk in their plans can quickly become encumbered. In a reactionary state, they increase the time required to mitigate ongoing problems and find new opportunities in evolving conditions. Inaccurate or inadequate measures of risk can even limit the effective communication between a person and his/her leadership and can lead to misapplied capabilities, under-resourced priorities, or loss of credibility. [33] It is thus beneficial to consider risk and opportunity over the short- and long-term with discerning eyes. Recently

retired from the special operations community, Colonel Brett Nelson agrees, stating that discerning risk and opportunity, "allows consistent superior decisions to be made at or near real-time."[34] Minimizing the lag between disruption and response is critical to the effectiveness of a resilient leader and a resilient organization. All plans will break down over time, but anticipation of this allows for increased resilience enabled by more rapid adaption. A leader's preparations can foster agility, and an agile leader can facilitate the success of a more rapidly adaptive organization. It is important to analyze the concept of risk within the context of three risk management models, as well as four responses to risk common in many people.

The three common models military leaders use to anticipate and mitigate risk are Operational Risk Management and Acquisitions/Project Risk Management, and risk avoidance policy. The operator cultures of the AF in the flying and battlefield airmen communities use operational risk to discern and mitigate known risks or threats when conducting flying missions, parachute operations, and tactical training. [35] Acquisitions/Project Risk generally focuses on cost overruns, achieving all timelines, and identifying steps in the process at variance with the legal and binding contracts and agreements. Avoidance policies can be quietly personal or published professional guidance developed to prevent or mitigate risk. Examples of policy norms include on- and off-duty safety; security of personnel, information, and equipment; professional risk (career); personal integrity (morals, values, and beliefs); and personal goals (i.e., the odds of getting what is desired). These norms are propagated by both the deliberate and indirect observations of leaders through speeches, on the job training, mentorship, inspections, and day-to-day interaction. Indeed, measuring risk can be difficult, overwhelming, and emotional. Commonly, organizations comprise of crude and inconsistent approaches to risk by leaders and personnel at all levels. Yet it is pertinent that a leader's personal approach and response to risk

must be refined, deliberate and calculated. A leader's communicated risk approach sets conditions for the creative boundaries their subordinates will use to accomplish tasks and solve problems.

. People commonly use four default responses to organize their thoughts and make a decision. The first is risk evasion. Evading risk is demonstrated by a simplified response from a leader who has not examined all risk, is overwhelmed by new information, or is unfamiliar or uncomfortable with a situation, pace, or context within which a decision must be made. Risk evading leaders approached by subordinates with new ideas or initiatives typically respond with a kneejerk "no" or "you can't do that."[36]

The second common default response is risk denial. This is the most expedient means for an individual to organize the complexities of risk because he or she simply discards it. Risk denial is reflected in four common concepts: fatalism (e.g., when it is my time to go it is my time to go), superstition (e.g., fortune favors the bold, luck is on our side), naiveté, and emotionally driven dissatisfaction with anticipated opportunities.

The third common default response is risk compensation. Author John Adams highlighted how the invention of the seatbelt in automobiles was a response to mitigating the deaths of passengers during accidents.[37] The resulting behavior by many drivers was that they could drive faster and more reckless because they perceived that the seatbelt mitigated risk of harm. Risk compensation simplifies the decision to assume greater risks because increased odds of survivability are predicted. This is not necessarily sound logic. Mitigation of risk and increase in risk are not necessarily matched in 1:1 proportionality; three seatbelts do not guarantee the safety of passengers driving three times the speed limit.

The fourth common default response is risk shift.[38] These shifts in how much risk one will assume are not necessarily a result of calculated risks against objective and static criteria; in fact, they are usually rooted in deeply personal loyalties, values, and emotions. External forces influence a leader to shift his or her perception of risk and commonly decrease the amount of risk a leader is willing to assume. Examples include a change in immediate family such as a pregnant spouse or new baby; proximity to death or injury to friends; proximity to promotion, appointment, retirement, or other critical points deeply related to personal desires. Conversely, internal or emotionally driven shifts can cause a person to "show off" by increasing the amount of risk accepted given the perceived opportunities made possible when someone of significance is understood to be watching.

These default responses to risk appear very rational and convincing to the individual decision maker. Indirectly, they also communicate the loyalties and values of a leader to the organization or whoever may be watching. It is critical for a leader to understand that these common responses are very real, exist within every person, and must be deliberately honed to meet the needs of the organization's goals.

A leader's mastery of risk discernment can be demonstrated in two ways; the first is the ability to rapidly adapt how much and what types of risk he/she is willing to assume. Leaders must anticipate changes to adapt their decision-making framework to the new vision and values they must work within. This requires both action and agility. As the operating environment changes, the risks must also change. A senior leader's acceptance of risk can increase or decrease depending on a multitude of factors, ideally consistent with the needs of the mission. If a leader's approach to risk changes, he/she also has the responsibility to guide the organization through the changes. Without this guidance, subordinates who have been told "no" or "you can't

do that" many times over months and years may have written certain courses of action or solutions out of their memory. They may not be able to recognize when the situation is right to try again; which, in a time of crisis may be a critical solution to an unanticipated problem.

Second, leaders must exercise wisdom and prudence to assume short-term risk for long-term gains when appropriate. [39] Assuming long-term risk in exchange for short-term gains can be perceived as an easier decision. Short-term gains are often immediately beneficial, tangible, and usually quantifiable; there is also much less perceived professional risk on the leader when he achieves short-term gains and immediate results.[40] Sacrificing short-term gains can be an extremely unpopular exercise for a leader because estimated long-term gains can be negated by numerous independent factors[41] and are not guaranteed to succeed. Therefore, assuming risk in the near-term to realize long-term beneficial outcomes requires advanced and calculating risk discernment, a mature assumption of risk, and harmonious leadership to ensure support from the organization.[42]

Inevitably, things change. Ideas once considered irrelevant can instantly become essential, and restraints that were considered immovable can suddenly vanish. New technology, new leaders, and new contexts can render old tasks, functions, programs, and authorities irrelevant. They can be replaced by open doors, new opportunities, new resources, and new solutions. Established leaders, organizations, tactics, and employment methods can become suddenly malleable when a range of options increases within the leader's acceptable risk boundaries. The opposite can also be true. Sometimes opportunities and creative space that were once flexible, available, open, and possible can suddenly be unavailable, unrealistic, and irrelevant. A good test of a leader's resilience occurs by rapidly adapting one's approach to risk

either by seizing opportunities emerging from new constraints or recognizing sudden acceptance of flexibility from one's own leaders.

The accuracy of information within a comprehensive decision-making framework is the basis for the quality of any decision a leader makes.[43] The foundation of any decision is the estimation of risk and opportunity, which is often shaped by the amount of trust between a leader and the members of the organization. Once students of leadership become aware of their loyalties, trust, and approach to risk, they can endeavor to always refine them, take responsibility for their actions, and begin to lead organizations. Given the significance and complexities of trust and risk, it is critical that a leader have time to think and reflect upon these subjects. A leader's analysis must be deliberate and comprehensive. This requires a decision-making framework that provides insight and enables critical analysis, reflection, and actions to continually improve an organization, its people, and the mission. This framework is reinforced by a comprehensive and predictable thought loop of analysis, reflection, and adaptation. In spite of the necessity, many leaders acknowledge that they have very little time to think. The next question provides an analysis of how leaders can prudently invest their time to both think and act wisely and effectively.



**What do I do with all this free time?**

Theoretically, a leader's first day on the job can be commitment-free. Naturally, as a leader responds to the professed needs of his organization and his senior leaders, his managerial and leadership actions take shape and begin to fill up the schedule. Many leaders find that their schedules are so full that their workdays begin to expand and weekends begin to fill up. Most leaders never ask questions about free time simply because they do not have any. It is not unusual to see leaders rushing through hallways, short on time, truncating conversations, and vigorously typing—all while truly believing that they are doing the best for the organization.

Free time and down time are both rare and cherished, yet all too often they are replaced by tasks or meetings. Exhausted, hardworking leaders simply cannot fathom how their professional roles would feel or appear when they are asked what they would do given an excess of free time.

Understandably, many leaders are culturally and emotionally compelled to feel, or be perceived as, "busy." An undiscerning practice of investing time can cultivate fragile processes, benign neglect of people or functions, and inadequate anticipation of short- and long-term risks and opportunities. The better practice is a disciplined and comprehensive approach to investing time. This sets the conditions for optimizing a resilient organization and its mission.

The question, "What do I do with all this free time?" provides an opportunity to critically examine how leaders invest their time and how time can be invested in order to cultivate a resilient organization. [44] The concept that leaders can or should even have time to think can be controversial. Many good leaders derive their activities from a strong conviction that being busy is directly proportional to the relationship of productivity, effectiveness, and value. This agricultural- or industrial-era operator or worker mindset is only sufficient when a leader's "hard work" is making effective decisions as carefully as possible but as fast as necessary.[45]

Leaders must also feel as compelled to think. A sound decision-making framework should, at minimum, account for the direction the organization must go, the effectiveness of that organization, the realities of improving all the aspects of that organization, and reflection on the leader's effectiveness within the organization. These elements must be analyzed regularly without allowing any to atrophy by benign neglect.

To optimize mission effectiveness, leaders must invest their time facilitating the success of and integrating people and functions to create greater impacts. This practice is called facilitation/integration, and the people who practice this are called facilitator/integrators.[46] Rigid

and fragile organizations are dominated by very busy leaders spending much time doing and directing. This practice is "do/direct management," and its practitioners are "doers/directors."

A leader's time can be divided into two components, the Reflective Loop (a leader's thoughts) and the Effective Actions list (a leader's activities) (Figure 1). These are interdependent, conducted simultaneously, and facilitated by a leader's decision-making framework. The Reflective Loop is comprised of critical elements a leader must reflect upon and understand in order to decide what activities to form from elements of the Effective Actions list. Priorities will inevitably draw a leader's focus to specific aspects of this cycle; every effort must be taken to ensure no element is regularly omitted from the process.

The Reflective Loop provides a path for a leader to think about all relevant people (including one's self), functions, tasks, programs, resources, initiatives and risks. This includes all elements within a leader's scope of responsibility, those he or she may be impacted by or benefit from during future collaboration opportunities. Comprehensive analysis of each of these elements, facets, considerations, common perspectives and opportunities for adaptation is conducted in-depth within each of the six questions in this paper.

The elements of the Effective Actions list must be informed by reflection and oriented in the direction of the leader's vision and values. These actions are also not strictly accomplished in a linear fashion and are not meant to be independent of each other. Leader can increase their effectiveness when execute two or more elements concurrently.

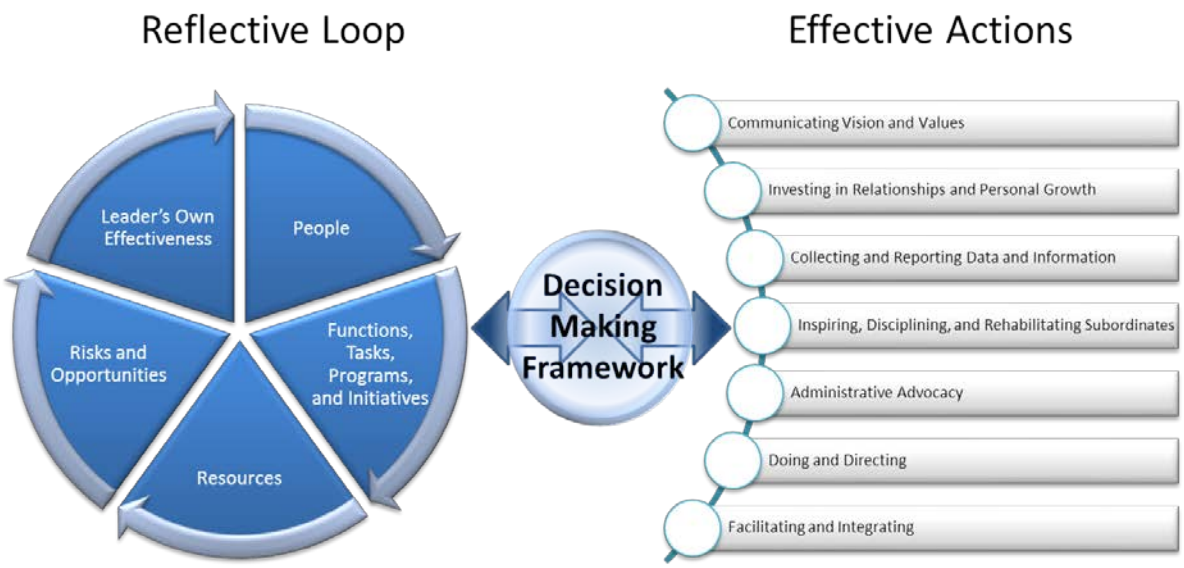


**Figure 1: Regular, comprehensive, and reflective analysis must be the starting point for a leader's actions. These actions should also further inform reflection. The complete process is facilitated by a leader's unique decision-making framework.**

The most important element of the Effective Actions a new leader must put into action early and often is to communicate vision and values. It is critical to confirm that all members, especially subordinate leaders, understand them. A leader must be in harmony with the stated vision and values of senior leaders and still uniquely tailor them to the context of the organization and mission. Much like the relationship of risk and opportunity, vision and values must always be considered and communicated together. Vision and values provide boundaries and direction within which subordinate behavior, process optimization, innovation, and organizational culture evolves.

Investing in relationships and personal growth is critical to building and strengthening one's self, an organization or network.[47] Striving for a professional intimacy allows leaders to calibrate their understanding of the state of their environment, fine-tune risk measurement, broaden their perspective, and formulate plans to achieve desired end-states. The ability of a

leader to effectively inspire and discipline subordinates is largely dependent on the depth and quality of the professional intimacy between them. Respect for a leader's position grants a certain amount of credibility. However, it is the investment in relationships that empowers all members to achieve unity of effort in harmony with established visions and values. Sometimes investment in relationships and personal growth, especially when meeting with peer- or senior-leaders, requires time away from the organization. Prolonged absence or absence during important events can erode a leader's credibility because he is either perceived to be or actually is "never around." This is an exercise in buying down professional risk; a professional intimacy with subordinates helps build and sustain a leader's credibility that can endure in times of absence or crisis.

Professional intimacy and data/information collection combine to empower a leader with situational awareness required for honing leadership effectiveness and adapting as they learn. Formal and informal meetings with individuals or groups are an opportunity to connect people, programs, and functions who otherwise may not have met. However, there are other forums—socials, team building activities, and professional development luncheons—that leaders can creatively leverage to promote networking opportunities and cross talk among organizations.

Data and information collection and reporting can include meetings, reports, data calls, situation reports, after-action reports, weekly activity reports, monthly vector check reports, and quarterly budget reports. Many leaders collect data through spreadsheets and electronic means. Information is usually collected through meetings. Conducting meetings efficiently and with purpose is an art in itself. Many meetings are called because they require a decision from authorized owners. Leveraging meetings with a secondary effect of cultivating a resilient organization is more challenging. To do this, a leader must construct and guide meetings in a

way that reinforces the sustainability of all processes in the event leaders were to be suddenly taken out of the equation. To the extent and speed that risk and authorities will allow, meetings are an opportunity for a leader to work oneself out of subordinate dependence. Each meeting has the potential of increasing subordinate proficiency, expertise, and problem solving skills; optimize processes; and reduce the likelihood of another meeting on the same subject. This is not an excuse for leaders to exempt themselves from investing in relationships with members of their organization. Leaders should be placed at a unique vantage point to best address problems and facilitate short and long-term solutions. They must also train and educate emerging leaders in preparation to accomplish the same. This is how data/information collection informs facilitation.

The previous elements all powerfully inform a leader's ability to inspire, discipline, and rehabilitate subordinates. Masters of this element of the Effective Actions list can achieve all three simultaneously. Rehabilitation is especially important to the resilience of an organization. Sub-standard performers or employees with conduct issues require focused leadership efforts to best facilitate opportunities for improving performance, professionalism, and attitude.

The next element of the Effective Actions list is administrative advocacy. These are tasks such as completing performance evaluation reports, presenting awards and decorations, and writing letters of appreciation or recommendation. Actions also include highlighting achievements of the organization or specific personnel to senior leaders. Administrative advocacy must be separated from other elements because these tasks generally require a leader to be removed from the bustle of day-to-day business. Because a leader's signature is the singular measure of the credibility of the content, these activities are an administrative expression of the leader's judgment and require painstaking effort toward perfection.

It is important to re-emphasize the interdependence of the elements of the Effective Actions list. For example, administrative advocacy and information collection and reporting can require substantial time investment. Many leaders invest much time conducting these tasks, convinced that they are hitting home runs in support of their people. So consumed with the tasks over time, they fail to invest in the relationships with the members of their organization; this undermines leadership effectiveness and diminishes trust.

Occasionally "doing or directing" a task or function can inspire a member or provide a quick solution when a person is challenged by a particular problem. Unfortunately, when leaders too often "do" the tasks meant for their subordinates, their actions undermine trust, hinder innovation, and curb development of future experts. Leaders who steadfastly default to mission control are commonly called micromanagers—"one who [tries] to control or manage all the small parts of (something, such as an activity) in a way that is usually not wanted or that causes problems."[48] Micromanagers, known for being perpetually stuck on the do/direct element of the Effective Actions list insert themselves in and between the decisions required by their subordinates. This commonly results in frustration, low morale, and diminished trust. To greater detriment, micromanagement strangulates critical thinking and abbreviates precious incubation time. Individuals trapped in this environment are unable to evolve their problem solving. Consumed with immediate output, they often fail to facilitate long-term solutions to problems common within the organization. Many micromanagers emotionally thrive on the notion that their members' or their organization's success is dependent upon them. They wittingly or unwittingly cultivate member- and process-dependence on them. Damage caused by a leader's incessant "doing and directing" is two-fold: an organization comprised of micromanagers and personnel unable to think critically, without constant guidance, are not optimized to rapidly adapt

when disruptions occur. Impressionable subordinates within this culture also grow to value a "do/direct" management style, perpetuating the rigidity of the organization and the culture.

Leaders should therefore strive to assume the roles of facilitator and integrator. Facilitation requires clear and sustained communication of the leader's vision and values. Facilitating success requires delegating and advocating. Advocating a subordinate's ideas requires leaders to say "yes" and permit them to try out new initiatives. Upon hearing a new idea, the leader can perform a simple cost benefit analysis: if the cost in time and energy invested by subordinates is higher than desired, and results will be an improvement over the status quo, consider the secondary positive results on the development, morale, motivation, and team building the journey toward project completion can yield.[49]

Integrators habitually seek opportunities for collaboration. They can bring together individuals, sections, and organizations, who otherwise may have never met. They can then activate this network in order to produce more options to anticipate or prevent disruption, often realizing greater outcomes than a single organization would have achieved. Integrators also coordinate and synchronize capabilities, functions, tasks, and programs to facilitate a successful unified effort toward the greater purpose of the vision and values they all work within.

An example of a facilitator/integrator practice of encouraging innovation is the Palchinsky Principle.[50] The principle is simple: sample results in a small area before risking widespread and unpleasant damage. If the outcome is satisfactory or better, consider facilitating success of the initiative as a new status quo across the organization (Figure 2). The maturation of a new idea can be facilitated by a leader's ability to connect the owner with people who are facing or have overcome similar challenges, or directing them to digital or print resources documenting relevant lessons learned. Occasionally, new initiatives require additional resources.

A leader may have to ask headquarters for additional resources or funding. This is an example of a leader prudently assuming short-term risk for potential long-term gain. This is also an example of facilitating the success of subordinates through advocacy. Clear vision and values empower subordinates to approach problems and develop initiatives that leaders should be prone to advocating because they land within acceptable boundaries. New ideas are not immediately dismissed because they fail to hit an unattainable goal of zero risk with maximum benefit. Leaders who adopt such narrow constraints for initiatives discourage innovation over time. Initially, junior leaders operating under an umbrella of poorly communicated vision and values from their senior leaders will strive to innovate and produce initiatives they hope their leaders will support. After several attempts and rejections, junior leaders can accede to the status quo, quickly becoming a part of the problem rather than actively facilitating solutions.[51] See Figure 3 for a conceptual example of this hypothesis.



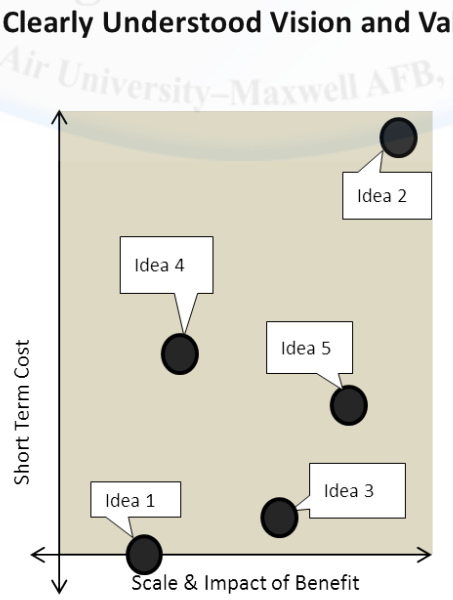


**Figure 2: The shaded area identifies the clearly understood vision and values of the leader. This domain and range can concentrate the innovative ideas from people in an organization. They should not strive for a bull's eye. In addition, a disruptive or transformative concept may be somewhere in the shaded domain but off the page entirely.**

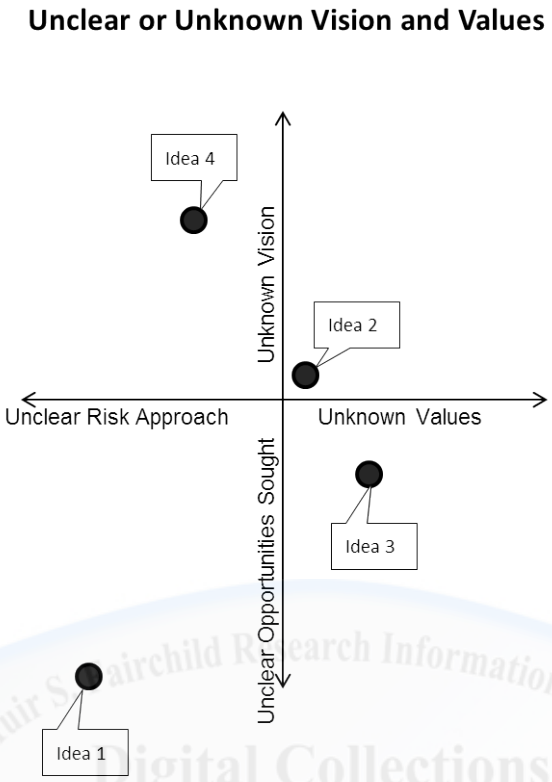


**Figure 3: Unclear or unknown leader's vision and values is represented by both axes to infinity in all directions. Innovative ideas will emerge but common answers from the leader are often no, no for now, maybe, or try again. Eventually the innovative spirit of the organization will wither.**

An organization with sufficient resilience, redundancy in creative lower-level leaders, distribution of control, and optimized processes frees up leader's time and empowers him/her to *think and lead* more. Processes and personnel are no longer insatiably dependent on the leader for solutions. The organizational culture is energized by trust, optimized processes, and empowered members. As a result, these organizations are better prepared to self-heal in case of unexpected disruptions. Leaders and subordinates must not be strictly dependent on each for survival, nor pursue independence because of dissonance in vision and values or friction in relationships. Adopting a concept from Stephen Covey's *Seven Habits of Highly Effective*

*People*, leaders and people in an organization must be interdependent upon each other for what value they bring to the overall effort.[52]

Facilitator/integrators can achieve interdependence much more efficiently than doers/directors. They approach problems with a facilitator's mindset, striving to facilitate successful problem solving by lower-level leaders. Doing and directing should be kept to a minimum. A leader cultivating a resilient organization must exercise prudence when determining when and to what extent he/she must "do" and solve the problem alone, or specifically "direct" a subordinate to solve it in a particular way. A leader intervening in a broken process to personally accomplish a task or direct improvement must always engage in follow up actions. These actions can be debriefing, publishing lessons learned, or training and education to improve the capability and capacity of subordinates' problem solving skills in the long-term. This is an example of a leader approaching a problem with a "facilitator's" perspective by optimizing (efficiency, effectiveness, and resilience quality) a part of the organization by improving a process and bolstering subordinates' skill-sets.

Learning and practicing this requires stark changes to common ways leaders approach problems. An analysis of three barriers to developing a facilitator/integrator culture follows. The first challenge is selecting and developing the right leaders. Often leaders and commanders in the US Air Force are typically identified for increased leadership responsibility as a result of their technical and tactical mastery in the early years of their careers.[53] Mastery of skill is quantifiable data that points to credibility. This credibility can earn trust and buy-down risk, resulting in increased deliberate development, investment, career vectoring, and promotion. There exists a leadership development quandary at this point in the career because technical and tactical mastery is not necessarily a critical attribute of a master facilitator/integrator. In fact,

this type of mastery is only one element of many attributes that can be used to identify someone for a position of leadership. In times of crisis or degraded communications, any leader or subordinate of any organization can suddenly need to become a facilitator/integrator of many pieces of other organizations, engage in mass collaboration and sustain his or her aspect of resilient command and control.[54] This leads to the second challenge: the capacity for thinking beyond the paradigms and loyalties exclusive to the sub- or micro-culture of their tactical upbringing.

Leaders in positions of responsibility that may require high-order levels of mass-collaboration and rapid adaptation must be able to transcend the paradigms of the culture they spent their formative years within. They must also acknowledge that the ways in which one learns and grows to master a single craft or capability are often different from how a leader must evolve. This growth must reflect the imperative of facilitating solutions by connecting people or capabilities that otherwise would not be connected but must in order for the mission to succeed.

Third, leaders must transcend greater cultural forces as a result of military leadership culture slow to adapt to rapid information technology developments. Lt Col Greg A. Roman assessed that military adaptation to command and control in the information age all too often gives in to the "the seductiveness of information technology" by rapidly centralizing vast quantities of information and decision making authority. This generally cultivates rigid hierarchies that focus information flow toward greater central control, which creates a blaring vulnerability.[55] He somberly concludes that the result is a military unprepared for the operations tempo of information-age warfare.[56] This is inherently a problem of trust and risk; an exercise in determining which leaders at what levels are to be given the appropriate authorizations to make what types of decisions. Centralization can occurs when a leader presumes that massing all the

right information will drive *certainty* that will inform superior decisions. This infers that subordinate leaders who will have less information will have less certainty and execute decisions yielding potentially unacceptable risks to efficiency, effectiveness, or both.

Addressing the challenge of certainty, Martin van Creveld concluded in *Command in War* that, theoretically, the only two ways to achieve absolute certainty are total centralization (i.e., enabling 100 percent do/direct management) or total decentralization (i.e., enabling 100 percent facilitation/integration) of information and decision making responsibility. [57] Van Creveld's analysis of 2,500 years of command in war indicates that a commander's intent is achieved more prudently when he leans toward centralization.

In an operating environment where communications are denied or disrupted, static centralization may not be possible. Agile leaders must therefore determine to what extent they must centralize or de-centralize decisions based on the level of trust in their operational culture, their ability to discern and anticipate risk and opportunity, and the constraints of the operating environment. In environments where communications are intermittent or denied, leaders may not have the luxury of relying on traditional hierarchies and architectures. Solutions must be created in real-time by a living and fluid network of distributed facilitator/integrators closely collaborating to address similar problem-sets. Inflexible reliance on the mission control model will limit breadth of solutions from leaders overwhelmed by helplessly doing/directing. Yet other leaders separated by communications disruptions may need to prudently direct hasty actions. Wisdom and flexibility can made possible by training that instilled anticipation of surprise as a key leader attribute.

These three challenges must be addressed through more thoughtful leadership selection, development, placement, and training. Senior leaders must also value the ability to collaborate as

a part of job performance and subsequently organize, train, and equip the force to better do so. Rapid adaptation of communication and organizational information management processes may require reaching outside of military circles to learn from corporations, small-business entrepreneurs or non-governmental organizations operating on the cutting edge of the digital revolution.

Most leaders' actions, especially during collaboration, require engaging and influencing another person from within or outside an organization. During data and information collection, leaders will hear subordinates identifying limitations, restraints, or decisions established by an elusive "they." Leaders must understand who "they" are and identify the best ways to communicate and influence them.

**Who is the "They"?**[58]

**"**They" are the individual owners of the authorities, processes, programs, functions, and tasks a leader would like to collaborate with or influence. Effective leaders within a resilient network must therefore invest further in building and strengthening a network by asking, "Who is the 'they'?"

This question is about identifying the person most responsible: the owner. The owner can be a commander, director, individual-in-charge, or project officer. Typically, as projects, processes, organizations, or problems grow larger, the owner's rank increases significantly. In the military, the "they," or the owner, is always one person: the one with the authority, the one with the resources, or the one who will likely be fired because of a significant failure within the scope of responsibilities.

The ability to truly influence outcomes depends upon a leader's ability to find and influence the owner. To influence people, one must find (or become) the supervisor or commander. To influence tasks, projects, or processes, for example, one must find the section

chiefs, production supervisors, floor managers, or engineers. Influencing programs and initiatives requires deeper discussion.

Programs are plans created to preserve precious resources and the people who use them. Examples of programs are sexual assault awareness and prevention, diversity in the workplace, safety, physical security, or regular maintenance checks. It is important to note that programs are owned by commanders. It is the commander's responsibility to integrate the values of the program into the culture and fundamental decision-making processes of the people within the organization. A program point of contact (POC) is typically the person most engaged in addressing questions and concerns from members of the organization. The commander bears the responsibility of facilitating the success of program in an interdependent relationship with the POC.

Initiatives are the investment of ideas within the mission and vision of an organization but are usually outside (or at variance with) the standard procedures. Initiatives are usually owned by talented junior leaders either because they originated the idea or have been delegated the task to develop it. Leaders can add credibility to initiatives by openly communicating support to the owners while still providing advocacy, resources, and freedom to maneuver as needed.

Quite often, "they" can be a previous leader, influencer, or owner whose circumstances, approaches to risk, or personal judgment may have been correct or incorrect at the time of the decision. Leaders find themselves either paying the price or reaping the benefits of past decisions. Since leaders cannot influence the past, they must exercise their Reflective Loop to gather information, think critically about the present, and determine the benefits of influencing or transforming the status quo.

Leaders that seek to know who "they" are sometimes unexpectedly find that they themselves are the owner. To prevent this, a leader must quickly and thoroughly explore and clearly understand the depth and breadth of his authorities once assigned the position of responsibility.

When a person outside of the organization is identified by a subordinate as an owner, the leader may be asked to engage because of the greater authority bestowed. If the initiative exists within the established vision and values, the leader can simply engage the owner directly or elect to engage a more senior leader with even greater authority. This is a leader's chance to advocate for his/her people and request action. Even 3- and 4-star generals pride themselves in being "action officers" on behalf of important initiatives that add significant benefit or effectiveness.

Leaders must consider the importance of communication with all the various owners inside their organization. Foremost, these are critical opportunities to listen and learn. They can also be used to reinforce visions and values, inform, inspire, guide, and mentor.

All leaders must understand the potential resilience and successes capable of a professionally disciplined yet highly networked organization or bureaucracy. The ability of a leader to engage owners outside of his organization is largely, but not exclusively, reliant on understanding command relationships. Researching and understanding organizational charts that denote hierarchies, leaders, offices, and desks builds one's understanding of where owners are found across a large bureaucracy. Absent of professional relationships or familiarity, the names and duty titles alone have little to no bona fides. However, once leaders begin to populate the charts by learning names and faces, and establishing personal connections,[59] it becomes easier for a leader to activate that aspect of his network to achieve a desired outcome. Many junior leaders ignore these charts and rely much more strictly on their chains of command and

established procedures to achieve results. Often this behavior is dictated by commanders; sometimes it is simply driven by unfamiliarity with the bureaucracy. Importantly, subversion or deception is not advocated here; all leaders must exercise judgment and should not compromise personal integrity at the expense of the organization or mission. A significant barrier to influence or collaboration with an owner exists when loyalties, authorities, or risk management are dissonant. In cases like this, formal processes to engage a higher-placed "owner" to advocate on the leader's behalf may be necessary.

Formal processes and relationships act as the cardiovascular system of bureaucracies; they pump life in a prioritized, but generally consistent, manner to the whole body, while also healing or rebuilding minor injuries. Informal relationships act as the nervous system, collecting and communicating information and understanding, deciding, synthesizing, and transforming sensory inputs. Neither system can operate without the other. Both need nurturing, training, maintenance, and exercise. Extending the injury analogy, injuries threatening life, limb, or eyesight[60] (surprise, crisis, disruption, or denial of a capability) require more intervention at a faster pace than the cardiovascular system alone can manage. These events require external intervention by a surgeon or specialist, (e.g., collaboration with expertise outside of the bureaucracy.)

The network of a master facilitator/integrator in a government may span organizations, hierarchies, owners, leaders, agencies, departments, bureaucracies, and cultures; these high-order networks of collaboration can cross resource and funding lines, even when the money and owners are unrelated by mission except in common defense of the nation. Leaders who rise to fill positions of great responsibility at the national level must coordinate and collaborate with individuals from non-governmental organizations, officials from other nations, and multi-

national coalitions[61] in the midst of ever-changing geopolitical dynamics rife with dissonant or disparate views on ways, means, and risks. Whether a leader is attempting to influence or understand the influence of the owner of a simple task, complex processes, a consortia of organizations, or a multinational military campaign, the principles of organizational resilience remain the same: find and influence owners, facilitate and integrate their capabilities and ideas, extend collaboration to the farthest reaches of the network, and focus solutions on responding to the crisis or surprise.

In spite of even the most meticulous collaborative efforts, leaders and organizations are ultimately put to the test when sudden disruption and crisis occurs. Preparing for this requires a balance between building robust preventative measures and cultivating resilience in responsive adaptation. The next question in this paper provides an opportunity to reflect upon this by examining how an organization can carry out its mission when its technology is disrupted, degraded, or fails entirely.



**What is wrong with my supply chain?**

Many junior leaders feel just as responsible for their technology as a common tourist aboard a commercial airliner feels responsible for flight safety. It is easy for many leaders embedded in complex processes to not ask this question because equipment is generally someone else's responsibility (i.e., maintenance personnel, information technology technicians, system administrators, or the acquisitions process). Eliminating this blind spot is critical to cultivating resilient intent. The connective tissues within the body of military strategy are synchronized and sequenced operations. The cellular composition of any operation is the employment of tactics, techniques, and procedures (TTPs). Ultimately, TTPs are usually derived from the best technology available to the user. Thus, any improvement or degradation to equipment can result in significant modification to tactics, operations, and strategies. In response to crisis or

disruption, the more reliant a user's suite of TTPs are on a singular technology, the longer this adaptation may take to realize.

Leaders and users of technology are issued equipment accompanied by guidance on proper use and care. It is important to include "information" as part of a leader's supply chain because sources of information, potential corruption of data, and incomplete information (opacity) are common challenges to leaders trying to gain certainty through a "clear and complete" picture of the problems at hand.[62] When considering the supply chain, one should consider equipment, information, or both. When the supply chain fails, or requires improvement or modification, those issues or actions only seemingly become someone else's problem (i.e., another owner's responsibility). Though the information technology personnel address hardware issues, the system administrator address network issues, and the maintenance personnel address equipment failure issues, the leader and responsible owner still must accomplish the mission, even when primary means and ways are rendered unreliable, irrelevant, or of limited use.

In many studies, a resilient organization is most often tied to its ability to continue on without its established leader(s).[63] [64] What is more effective, more challenging, and more relevant is the ability to continue toward resilient mission accomplishment when resources and technology are suddenly disrupted, rendered ineffective, or removed from the processes altogether.[65]

This should be an intriguing and uncommon lens through which junior leaders can begin to see their organization. Consider an operational unit and create a theoretical "basket" of the most important equipment required. This unit's example will include government-issued laptops and commercial, off-the-shelf global positioning system (GPS) watches. Risks concerning the laptop include possible industrial espionage actions against the hardware or software and attacks

to—or exploitation of—properly working laptops by hackers.[66] Commercial GPS watches are not equipped with anti-spoofing safeguards; the GPS signal can easily be jammed or modified to indicate an incorrect location. A significant challenge to most line commanders is that they are only responsible for a short interval of their supply chain. In the US Air Force, this surety belongs to distant units focused on "enterprise-wide" technology that was "pre-screened" and vetted by labs and acquisitions testing. The surety of the equipment can be compromised by faulty contracts, engineering flaws, deliberate deception, wear and tear, standard loss rates, and changing operational environments. Leaders often focus singularly on efforts to reduce loss rates by publishing a risk-averse training policy. The result is a bench stock of mission-ready equipment personnel avoid experimenting with because their leader places higher value in the risk of loss versus the opportunity for expertise or innovation. Also, it is not a comprehensive approach to address the spectrum of risks that can impede mission success.

In cases of recurring damage or loss, or the need for rapid modification to adapt in response to emerging problems, leaders can attempt to modify the standing procedures to mitigate damage or loss without sacrificing mission effectiveness. Leaders must then facilitate resilient rapid research and development and re-supply methods.[67]

In cases of significant disruption to technology, such as a broken supply sustainment chain, jammed communications equipment, hacked computers, spoofed navigation, or unsynchronized clocks, leaders must find ways for the mission to continue. While a common philosophy regarding the vulnerabilities of technology is that practices have become too dependent on it, maintaining a "tech proficiency balance" of expertise within an organization is a prudent approach to risk and opportunity. Simply stated, leaders must balance the development and sustainment of a cadre of trained experts proficient in advanced methods with the latest

technology and a bench of experts proficient in operating older technology or methods considered suboptimal. The tech proficiency balance can be integrated at the small-organization level by maintaining a spectrum of well-practiced TTPs. Designing and practicing TTPs to sustain this balance helps assure more rapid adaptation when the supply chain is compromised. For example, though it is easy to spoof or degrade commercial GPS hardware, it is very difficult to deny a compass the ability to find magnetic north. A tech proficiency balance to maintaining land navigation expertise balances opportunities for innovative training given anticipated risks. This approach to training also cultivates operators—and future leaders—who more flexibly prosecute the mission independent of disruption to their advanced technology.

A leader who values sustaining a tech proficiency balance throughout the organization can facilitate idea sharing to foster flexible planning, opportunities for optimizing processes, and creative solutions to potential challenges. This practice enhances all members' professional and emotional readiness to effectively respond to unexpected disruptions to technology or constraints on processes.



Initially, achieving this balance can be a very difficult exercise for leaders and owners. Time spent training to less advanced and relevant tasks can be perceived as an inefficient distraction from focusing on the latest technology available. Some organizations have such a training burden that adding additional training to their schedules comes at a cost to maintaining other skills. Senior leaders must include operational resilience within their vision and values and rely on junior leaders to design elegance in their training plans that achieve the tech proficiency balance.

Some operators may find this balance difficult to attain. For example, in the event an office worker's sole equipment, a networked computer, fails, it is very easy for a clerk to

reactively claim he/she cannot complete task. However, resilient solutions might include different methods of processing information and a reconsideration of the organization's decision-making processes altogether. Leaders must educate their employees on both older technologies and groundbreaking practices as a foundation for solution development. These types of solutions require practice; leaders must establish this type of training as a priority in their communicated vision and values.

Approaching the problem of a surprise or unexpected change in available technology can be emotional for leaders and employees. Training and preparation using "outdated" TTPs can be perceived as obstacles to the "real" mission. Disbelief in technological disruptions or imprecise risk analysis can overcome anyone with the stress and weight of "what ifs." Unfortunately, without senior leader support for initiatives such as the tech proficiency balance, these perceptions and doubts can culminate personnel who are emotionally and functionally unprepared for sudden disruptions to their day-to-day ways and means. This can all be mitigated by leaders working within a clearly established vision and values that define optimization as a balance of efficiency, effectiveness, and resilience potential.

A leader who defines optimization this way will assume significant professional risk if senior leaders focus primarily on the efficiency portion of optimization. Preparing for a scenario that the greater organizational culture lacks in corporate memory or experience is an exercise in anticipating long-term risks. And as previously discussed, this requires stronger and more mature leadership. External risks may often be too significant in the near term to also focus on resilience potential when optimizing processes, organizations, and technology investments. For example, economic risks are very serious when senior leaders at the institutional level must consider acquisitions and research and development decisions. If the economy is tight and

budgets are shrinking, the investment of resilience potential may be estimated as too costly. Fortunately, the culture of resilient intent is also underwritten by a tech proficiency balance in the diversity of platforms, equipment, and tools used to accomplish the mission. Still, results-driven, efficiency-loyal leaders can view this as an exercise in futility, a nice-to-have that is simply out of reach, a "no, for now" perspective. Unfortunately, overcoming adversaries, competitors, sudden disruptions, or crises will be decided by the more resilient organization, not necessarily the most technologically advanced.

As emerging technology improves tactics, techniques and procedures, a leader must find a balance in developing cutting edge methods and preparing a rapidly adaptive force. Yet there are many technology dependencies so engrained in normal business that they are blind-spots in risk analysis. A leader must therefore build and activate a network to increase awareness, share best practices and rapidly create effective solutions when needed.

Leaders with an eye on preparing for surprise will face significant challenges from within their organizations. Inertia, tradition, common resistance to change, personalities, and friction are a few obstacles. The risks of surprise are too significant to ignore, and when crises occurs all members will look to the leaders for guidance, direction and solutions. The final question therefore addresses a leader's own effectiveness and the speed at which he or she can facilitate effective adaptation of the organization.

**Am I the leader I want to be or the leader the organization needs me to be?**[68]

This is a striking inquiry that quite often leads to initially somber reflections. Most leaders want their talents and strengths to resonate with the organizations for which they are responsible. However, leaders at most levels, especially in the military, have limited ability to choose their workforce. They must trust and adapt to external factors such as recruitment, assessment, and selection processes; effectiveness of previous institutional training and

education; and the quality of investment prior leaders have invested in the growth and development of the individuals they are inheriting.

At the onset of new responsibilities, most leaders also do not get to choose the context their organization must work within. For military organizations, this may include combat, disaster relief operations, restricted budgets, or challenging geographic locations.

Though they can yield much influence over time, leaders do not initially choose the culture and sub-cultures of their organization. Leaders also do not get to choose the condition of the organization. This can be sobering when they realize their original vision simply cannot be met in a realistic period. Barriers include the friction of normal operations, effects of poor talent management, skill-set incompetence, low morale, or emotional wounds from previous leaders or conditions.



Leaders should strive for a style that is natural when a crisis or major disruption suddenly occurs. The emotion and friction of unsettling and discomforting realities can have an effect on people, and even trusted owners can begin to lose credibility through misconduct or unprofessionalism. Personal problems inside and outside of the workplace can influence individuals or propagate through the organization. Disruptions include loss of a key leader or a respected person, a death of or harm to someone in the organization, and decreased resources with increased expectations. Leaders must have an appropriate level of professional intimacy and a vision to see the mission and the people through these disruptions.

Effective leaders must demonstrate resilient intent, embrace the cumulative effect of partial solutions, energize their network and advisors, and perform careful analysis of the elements of the Reflective Loop (Figure 1). The Reflective Loop enables a leader to create an effective strategy to employ the necessary elements of the Effective Actions list (Figure 1).

Many organizations are not rife with dramatic setbacks, yet aspiring leaders must accept that they may be required to find ways (sometimes outside of their comfort zone) to advocate for and motivate other owners and personnel, using various traits, methods, and approaches. The necessary approaches may be contrary to how the leader, as a person, naturally interacts with people. A leader's demeanor, as much as anything else, will also need to adapt. During crisis or the aftermath, temperament, patience, and personal sources of strength may require significant recalibration. During crises, leaders must practice patience and anticipate that most information and results of actions taken may come much more slowly, if at all. When attempting to construct or reconstruct an organization, a leader must ask, "Is this the organization I want or the organization the critical mission needs?"

Communication disruptions can create significant problems. Internet connections and radio or cell phone communications can be slow, intermittent, or non-existent. The tempo of decision making and the consequence of decisions may be extremely high, but timely data and information collection and reporting may not be possible. Technological issues, adversary or competitor's actions, even severe weather can upset the flow and quality of information. In the least, this triggers frustrated emotions among personnel working feverishly to regain the status quo.

Catastrophic equipment failure for any reason is also a crisis, but it can also present new opportunities. For example, consider a flying squadron that faces catastrophic technology failure in all of the available aircraft. In the face of a complete denial of primary capability, the pilots, crews, and support personnel still exist and among them is an incredible source of talent and brainpower. The larger network seeking to distribute control of an aspect of the ongoing operation may find added resilience by leveraging this grounded unit. Temporarily repurposed as

a talent depot, the talent within this organization can answer questions, provide analysis, or generate solutions to complex problems that another leader in the network simply cannot manage due to the operational circumstances. Concerning the larger network, this is the embodiment of resilient intent; in spite of the sudden change in ways, means and risks, the desired outcomes must remain. Therefore, leaders must also ask, "Is this the mission we want or the mission that is needed?"

In the case of sudden and significant disruption, a leader may have to re-examine every aspect of the organization, functions, programs, tasks, people, resources, and their own effectiveness. Depending on how or why the disruption occurs there may not be much time to do so. Leaders who have prepared themselves and their organizations to exercise resilience are those who have sustain consistent and disciplined analyses of all the elements in the Reflective Loop. In demonstrating resilient intent, leaders must re-affirm their loyalties; reconsider and reflect on risks; scale and adjust the vision and values for the organization; prioritize functions, programs, and initiatives; and facilitate efficiency and resilience with all owners and processes. Most processes following significant disruption will experience a loss in efficiency. Circumstances may require leaders and process owners to assume a "mission command" mind-set. They may need to adapt their trust validation practices and anticipate that people are going to be "at variance" with the original guidance. Resilient leaders must distribute control to relevant owners, continue to develop emerging leaders, and guide the new organization with clearly stated vision and values.

Aside from the adaptive actions necessary in response to an "everything has changed…for now" event, leaders must adapt their management style. Doer/directors and their organizations may not be the first to fail but will likely be the slowest to recover. Doer/directors,

by underinvesting in their people, have cultivated a rigid and fragile organization with minimal resilience. This is a mistake by omission—a failure to devise a strategy and integrate initiatives such as the tech proficiency balance into the normal culture of conducting business with resilience as a priority. Resilient organizations simply cannot be created after an emergency.[69] In a contest to effectively close the gap created by surprise, those who are most resilient maintain the advantage.

Organizations developed by facilitator/integrators may still fail at the onset, but they are prepared to recover much more quickly. People in these organizations are able to grasp the power of persistence and the cumulative effects of partial solutions. Once integrated, people across a network who are deliberately developed as creative thinkers and problem solvers can create synergies and exponential effects to facilitate mission accomplishment. Creative and adaptive owners are required for mission survival and mission success. Facilitator/integrators may never be able to prepare for every setback, but they can be assured that their investment in personnel and networks will prime their organization for a more effective recovery.



## Conclusion

National and military leaders make significant efforts to prevent surprise, using all of the instruments of national power. Some ways and means include superior intelligence collection and analysis, innovative technology and strategy, partnerships with industries, creation of alliances, and global economic interdependence. Still, surprise can never be completely prevented, and not all risks can be anticipated.

The nature of conflict and competition is now strategic surprise, disruption, degradation, and denial of technological advantage. Surprise can occur suddenly with immediate effects. Sometimes surprise is slow burning and localized, operating just shy of cause for escalation. Yet both can challenge the intent of one nation or many nations. Effectively closing the gap between

realization and effective response, whether localized and tactical in nature or widespread and strategic in scope, will require a leadership culture that embraces resilient intent.

Transitioning young operators from specialist "doer/directors" to generalist leaders and "facilitator/integrators" requires careful selection and deliberate development. However, specialization of expertise within an organization is also required and must be equally nurtured and maintained. Balance is a consistent theme within resilient intent culture.

Developing facilitator/integrators requires senior leaders who appraise a junior leader's performance largely upon the ability to successfully collaborate, sustain demonstration of sound judgment, and remain decisive. Developing resilient command and control architectures requires an intensive focus on training and exercises that empower all participants to work through gaps caused by disruption, degradation, and denial of technology. Senior leaders must value certain types of failure during training. The right kind of failures during training and exercises will stimulate debriefing sessions rife with frustrated and shocked operators and leaders in the formative years of their professional lives. This must occur often enough that surprise becomes a comfortable assumption, real-time innovation becomes an expected procedure, and scalable collaboration—even at the tactical level where young leaders tend to desire independence—becomes a cultural norm.

The six questions provide an opportunity for leaders to reflect, discuss, and refine their attributes and mentor others to also do so. They are deliberately constructed to intrigue, inform, and induce conversation in an effort to overcome cultural barriers inhibiting development of rapidly adaptive leaders. Any current or future leader, formal or informal, in any institution, organization, network, or role can consider and discuss the attributes of resilient intent in order to transform themselves, their people, and their organizations to effectively respond to surprise.

## End Notes

(All notes appear in shortened form. For full details, see the appropriate entry in the bibliography.)

1. This is a synthesis of concepts from Lind et al. “The Changing Face of War: Into the Fourth Generation.”

2. Lt Col (S) Stewart Parker, AF Special Tactics Officer, interview by the author, 9 March 2015.

3. Collaboration with individuals across a network harness a range of people each with their own scope, talent, experience, biases and diversity of opinion. A master integrator can leverage collaboration and focuses the range of creativity, insight, awareness, and talent to tailor a solution. In spite of the times a leader may feel alone when facing tough challenges, this paper assumes the following: that a leader alone will not have all the answers, creativity, insight, awareness, and talent to lead an organization resilient to shock, disruption, surprise or crisis. The organization one leads will not have all the resources or corporate knowledge to always succeed. The mission of the organization won’t have all the necessary effects to achieve complete solutions. A common adage of doer/directors is that “leadership is lonely.” On the contrary, leadership should only be lonely in the moments of quiet when a leader is formulating a tough decision unique to a specific context, when making the decision, and when bearing the responsibility of the failures resulting from that decision. The rest of the time the leader invests shouldn't be lonely at all. In fact, the wider the net cast to collect data, insight and wisdom, the less lonely and more effective and responsive a leader can become.

4. Mastro, Operational Resilience, 5.

5. Unattributed official from Office of the Secretary of Defense Strategic Capabilities Office, interview with the author, January 2015.

6. Leadership and a Culture of Trust; CJCS Mission Command White Paper; A Paradigm of Trust and Dialogue.

7. CJCS White Paper; Joint Vision 2020.

8. An excellent analysis of the type of military branches and cultural approaches for these models can be found in Groysberg, Boris, Andrew Hill, and Toby Johnson. "Which of These People Is Your Future CEO?"

9. Army Doctrine Publication (ADP) 6-0, Mission Command (Washington, DC: U.S. Government Printing Office [GPO], 2012), 1.

10. This is captured in great non-fiction prose in Marshal Michel’s Eleven Days of Christmas. The pinnacle of US Air Force process-oriented environments was during Strategic Air Command’s zenith of performance and strategic importance to the US at the height of the Cold War with the Soviet Union. General Curtis LeMay led the establishment and propagation of processes guiding every action that bomber crews and all support personnel had to adhere to with 100% compliance 24 hours a day, 7 days a week, 365 days a year. Subordinate organizations or crews caught at any degree of variance with specific policy and instructions were deemed combat ineffective, disciplined and re-trained.

11. Lecture and interview with General Joseph Votel, Commander, US Special Operations Command, 23 March 2015.

12. Col (Ret) Kurt Buller, formerly the Commander of the US Air Force 720$^{th}$ Special Tactics Group, made this a top priority for himself and all subordinate commanders and leaders to strive for. Professional intimacy had to be fostered and maintained with each unit member in spite high operations tempo or distance between supervisors and members during temporary duty or

deployment. Professional intimacy empowered all personnel and families to support each other through times of significant grief due to personnel killed or wounded in action. Much like trust, it should not be sought only after an emergency occurs.
13. The progression of dependence, independence and interdependence is derived from Stephen Covey's famed work, The Seven Habits of Highly Effective People.
14. As a leader rises through the ranks to encompass responsibilities driven by complex and layered processes far beyond the scope of personal expertise and capacity, micromanagers will have to devolve to nanomanagement. Note: micro- is a mathematical prefix for 10-6 or .000001 or 1 Millionth, nanomanagers will have to focus in on the pixels at the 10-9 or 1 Billionth level. To remedy, they must then ask themselves, is an original work from Picasso even comprised of organized pixels at all? They must step back and take a different perspective and derive a new appreciation for the results altogether. This is simply not a realistic practice for any manager to sustain. The need for increasingly rapid and complex actions, processes and tempo is simply too important to be held back by untrusting managers.
15. Finding the time to do so is extremely difficult when consumed by the demands of incessant doing and directing, inflexible use of the mission control model, over-dependence subordinates on the leader, or the relationship challenges borne of mistrust.
16. The genesis of this inquiry is a result of personal mentorship from Colonel (Ret.) Brett Nelson during a deployment to a special operations task force in Afghanistan in 2010. Then Lt Col Nelson asserted that one of the most important things an officer does is correctly measure and assume risk given the context of the situation and the ends that are required. I began to exercise this view looking through a lens strictly of risks, breaking every decision down to the simplest form of outcomes and consequences, especially with the bounds of higher-headquarters vision and values. Since then, my process is not as mechanical and much more seamlessly integrated in my approach to decision making.
17. ISO Guide 73:2009.
18. Hubbard, 49.
19. Mohun , 4.
20. Beck, *Risk Society,* 19.
21. Beck, *World Risk,* 4.
22. A concept adapted from Edgar H. Schein, *Organizational Culture and Leadership.*
23. Think sections, groups, wings, centers, commands, services, agencies, and career fields.
24. Mohun, 5. "Both contemporary psychological research and historical evidence also suggest that risk perception varies from individual to individual and between different social groups. These differences reflect personal experience, but also cultural values held in common and reinforced by others."
25. Gold Team operators, 10th Combat Weather Squadron are the plank holders of this principle. It acknowledges deliberate investment in the professionalism, maturity and emotional intelligence of the operators on their journey to master their craft and evolve as leaders.
26. Questions that augment this discussion are: How does my organization understand and organize itself around risk? What has my leadership communicated about risks? What are some of the risks I have not considered? Why do people seem to find themselves in unsavory consequences when they understood the risks before their decision was made?
27. Žižek called these "Unknown knowns"...since risk is subjective its construction occurs through culturally biased lenses...see Coker, *War in an Age of Risk.*

28. For an brilliant analysis of decision quality, see Palaoro, “Decision Superiority and Information Operations: Expanding the OODA.”
29. Also called the Boomerang Effect; see Mohun, *Risk.*
30. A critical examination of how a leader invests his time is discussed in the “free time” section.
31. I also acknowledge that for some people, there is a “point of departure” from the risks they understand and the decisions they make, however this paper will not examine the art and science of decision making and judgment; though I hope that as a person practices thinking through risks and opportunities as they relate to each other, their conclusions, along with emotional maturity will drive more prudent and wise decisions.
32. From a speech to the National Defense Executive Reserve Conference in Washington, D.C., November 14, 1957.
33. Colonel(S) Joseph Benson, Special Operations Weather Officer fervently mentored the necessity for a leader to advocate for his organization and people through measured audacity and boldness in communication. He asserted that many leaders shy away from this important responsibility because they place too much importance on the professional risks rather than the opportunities made available for the subordinates or the mission. Col Michael Flatten, AF Special Tactics Officer, also stated that many leaders prefer to try to tackle problems on their own and shy away from requesting help, and that others focus on what they fear may occur (judgment, increased scrutiny, or rejection) if they ask their own leaders for additional resources.
34. Personal interview with Col (Ret.) Brett Nelson, Special Tactics Officer, 11 March 2015.
35. Much of the literature delineates threats, hazards and dangers from risk. I attempt to integrate the concepts for simplicity; for example, threats can be considered in the category “risk to force”.
36. Note: This is not the same as prudent risk adaptive leaders who use “risk avoidance” in an attempt to redirect or reconstruct the organization and processes in order to institutionalize and make permanent the avoidance of a particular risk altogether. Results of a process in the Air Force that does this are Safety Investigation Board recommendations, which often drive institutional norms across existing operating procedures.
37. See Adams, John, *Risk.*
38. Originally entitled “risky shift” by James A.F. Stoner in 1961, the proven concept that people make different decisions about risk than when they are alone is discussed in an operational context by Dale Atkins’ in his article, “Human Factors in Avalanche Accidents” published for the Colorado Avalanche information Center.
39. For an concise discussion on delineating wisdom and prudence, see Miller, Michael S., “The Military Ethos and the Hero: Why the Military Should Re-Examine its Study of the Heroic.”
40. Personal interview with Col (Ret.) Brett Nelson, Special Tactics Officer, 11 March 2015.
41. These are called “wicked problems” as opposed to “tame problems”. For a simplified discussion see Seidensticker, *Future Hype : The Myths of Technology Change*, 45-48.
42. Personal interview with Col (Ret.) Brett Nelson, 11 March 2015.
43. Palaoro, “Decision Superiority and Information Operations: Expanding the OODA.”
44. This section assumes the anonomous adage, “Time should never be spent, but ever invested.”
45. Personal interview with Dr. James Young, PhD. 2 April 2015. Dr. Young expounds that, “some of this behavior (staying busy) is a result of conscious processing of the idea that "if I'm not busy, I'm not earning my pay" but other factors are likely at play. For example, organizations influence the degree to which we see this behavior by directly or indirectly valuing the person that is able to juggle the most. Because we work in an environment without a real

bottom line (e.g., money earned) it's often difficult to determine if juggling more actually translates into being more productive or effective....so it's just assumed that more is better. It's the same reason, I think; some people show up early in the morning or stay late.....it gives the impression of greater productivity. Dr. Young pointed to studies that demonstrate the positive bias that supervisors have of employees who show up to work early. He posited that guilt is another factor. It's likely unacceptable for most leaders to come to the conclusion that they're not working as hard as subordinates. To compensate, leaders fill their schedule with a variety of things that will keep them busy.

There is a similar phenomenon that exists in a leader's inner-monologue, "the more 'stuff' I did today correlates with how good I can feel about myself as a leader. If I worked as a salesman and I exceeded my sales every month working fewer hours, maybe the need to stay busy would be less?"

Also, in a work environment where feedback is less frequent or less meaningful (e.g., inflated) there is more likelihood of a perceived need to stay busy.

46. For excellent vignettes on facilitator/integrators at the operational and strategic levels, see Paul Kennedy's *Engineers of Victory*, and Neil Sheehan's *A Fiery Peace in a Cold War.*

47. Relationships are proven to support personal resilience from emotional traumas such as post-traumatic stress. Personal interview with Dr. James Young, psychologist, USAF, 2 April 2015.

48. http://www.merriam-webster.com/dictionary/micromanage, accessed 24 February 2015.

49. The AF finance career field deliberately educates their leaders in Decision Support Analysis to facilitate successful preparation, packaging, and presentation of information when advising senior leaders.

50. Captured elegantly in Tim Hartford, *Adapt.*

51. In 2005, Col Darren W. McDew, Commander of the 43d Air Wing at Pope AFB, NC (the Commander of Air Mobility Command at the time of this writing) greeted all inbound personal newly assigned to his base. He told all that for the first six months of their time their fresh perspective and ideas would contribute to innovative solutions. Following six months on station, most personnel become a part of the problem.

52. Synthesized from Covey, *Seven Habits of Highly Effective People.*

53. Common General Officer mentorship and advice to young Lieutenants and Captains is to master their craft and strive to be the experts in their field of work.

54. Gen (Ret.) Gilmary Hostage, formerly the Commander, Air Combat Command and then Lt Col Larry Broadwell published an article on resilient command and control (C2). The intent is to present a new C2 paradigm, shifting away from centralized control and decentralized execution to centralized command, distributed control, and decentralized execution. During a personal interview and in collaboration with now Col Broadwell, Commander of the 1st Fighter Group, we established definitions for these terms within the context of resilient intent. Centralized Command is the legal authority to publish overarching vision, values, and priorities that all assigned players must apply their capabilities within. Distributed Control is the synchronized application of available capabilities to address a common problem-set. Decentralized Execution assures that each player operates in concert with the commander's vision and values, is capable of rapid adaptation, and is empowered and authorized to integrate capabilities with maximum effectiveness given the unique context of the problem-set.

55. Roman, "The Command or Control Dilemma: When Technology and Organizational Orientation Collide.", 2.

56. Ibid., 3.
57. Van Creveld, *Command in War.*
58. This question, verbatim, is one consistently asked by Lt Gen (Ret.) Eric Fiel during his tenure as the Commander of AF Special Operations Command from 2011-2014. The question was a direct method of finding who had the authority or ownership of an aspect of a bureaucracy—he could therefore determine whether he, a subordinate or his leadership (whether the Chief of Staff of the Air Force or the Commander of US Special Operations Command) was required to weigh in as an action officer to influence outcomes.
59. The powers of personal connections in a bureaucracy are significantly enhanced by cultivating a professional intimacy.
60. Serious and life threatening injuries are almost always surprises. Sometimes, like combat wounds, they are anticipated risks and can be mitigated through tactical medical training and expedient patient delivery processes to more advanced hospitals with specialized staff.
61. ACSC Lecture on Civil-Military Coordination Centers, International Security Studies, September 2014.
62. The concept assigned to this problem is called “mission assurance”.
63. Excellently captured by Mastro, “Operational Resilience for 2020.”
64. Creating an organization that positively responds to volatility or crises is discussed at great length by Nassim Talib, *Antifragile.*
65. This is also a lesson in risk that is commonly approached by denial or avoidance to simplify the little understood complexities of potential problems of a supply chain for even a small organization.
66. CNAS Report “Surviving on a Diet of Poisoned Fruit: Reducing the National Security Risks of America’s Cyber Dependencies” executive summary: Digital technologies, commonly referred to as cyber systems, are a security paradox: Even as they grant unprecedented powers, they also make users less secure. Their communicative capabilities enable collaboration and networking, but in so doing open doors to intrusion. Their concentration of data and manipulative power vastly improves the efficiency and scale of operations, but this concentration in turn exponentially increases the amount that can be stolen or subverted by a successful attack. The complexity of their hardware and software creates great capability, but this complexity spawns vulnerabilities and lowers the visibility of intrusions. Cyber systems’ responsiveness to instruction makes them invaluably flexible; but it also permits small changes in a component’s design or direction to degrade or subvert system behavior. These systems’ empowerment of users to retrieve and manipulate data democratizes capabilities, but this great benefit removes safeguards present in systems that require hierarchies of human approvals. In sum, cyber systems nourish us, but at the same time they weaken and poison us.
67. US Special Operations Command Rapid Development and Acquisitions Center (SORDAC) is an example of an organization granted unique authorities and streamlined bureaucratic processes to accomplish this.
68. Inspired by Levy and Parco, *The 52d Floor: Thinking Deeply About Leadership,* the chapter entitled “The Thespian.”
69. This is inspired by the Five Special Operations Forces Truths. 1. Humans are more important than hardware. 2. Quality is better than quantity. 3. Special Operations Forces (SOF) cannot be massed produced. Competent SOF cannot be created after emergencies occur. 5. Most Special Operations require non-SOF support.

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